Foundation for Alcohol Research & Education

# An exploration of how social context and type of living arrangement are linked to alcohol consumption amongst older Australians

Dr Celia Wilkinson, Dr Julie Dare & Associate Professor Stacey Waters
EDITH COWAN UNIVERSITY

Professor Steve Allsop, National Drug Research Institute
CURTIN UNIVERSITY

Ms Sheila McHale
PALMERSTON ASSOCIATION INC.

NOVEMBER 2012

ECU EDITH COWAN UNIVERSITY

NDRI national drug research institute

PALMERSTON ASSOCIATION INC

# About the Foundation for Alcohol Research and Education

The Foundation for Alcohol Research and Education (FARE) is an independent charitable organisation working to prevent the harmful use of alcohol in Australia. Our mission is to help Australia change the way it drinks by:

- helping communities to prevent and reduce alcohol-related harms
- building the case for alcohol policy reform and
- engaging Australians in conversations about our drinking culture.

Over the last ten years FARE has invested more than $115 million, helped 800 organisations and funded over 1,500 projects addressing the harms caused by alcohol misuse.

FARE is guided by the World Health Organization's *Global Strategy to Reduce the Harmful Use of Alcohol*[1] for addressing alcohol-related harms through population-based strategies, problem-directed policies, and direct interventions.

For further information about FARE visit the FARE website at www.fare.org.au.

If you would like to contribute to FARE's important work, call us on (02) 6122 8600 or email info@fare.org.au. All donations to FARE over $2 are tax deductible.

[1] At: http://www.who.int/substance_abuse/activities/gsrhua/en/

# An exploration of how social context and type of living arrangement are linked to alcohol consumption amongst older Australians

**Dr Celia Wilkinson, Dr Julie Dare & Associate Professor Stacey Waters**

**EDITH COWAN UNIVERSITY**

**Professor Steve Allsop, National Drug Research Institute**

**CURTIN UNIVERSITY**

**Ms Sheila McHale**

**PALMERSTON ASSOCIATION INC.**

**NOVEMBER 2012**

# Contents

# Introduction

This report summarises the major findings from interviews conducted with 42 older people aged 65-74 years living in retirement villages and private residences in the greater Perth metropolitan area, between 15 June and 19 September 2011. Each interview ran for approximately 60 minutes, and examined alcohol use and the connections between alcohol and the social lives of older Australians.

## Background

Australia, like other developed countries, has a rapidly ageing population. The 2006 Census identified 19,855,288 persons resident in Australia [1]. The number of Australians aged 65 years and older was 2,644,374, representing 13.3% of the total population [1]. Over the next 50 years the number of older people in Australia is expected to increase to 6.5 million, representing approximately 25% of the total population [2]. While more young males and females drink at high-risk levels than other age groups, alcohol-related deaths amongst Australian males peak in the 65 to 69 year age group, and in the 70 to 74 year age group for females [3, 4]. These deaths were primarily resulted from degenerative conditions such as alcoholic liver disease, alcohol dependence, cardiovascular disease, and cancer [5].The ageing of the Australian population [2], combined with the increased sensitivity of older adults to the effects of alcohol [6-9], as well as concerns surrounding concomitant alcohol and contraindicated medication use [8], suggests that alcohol related problems amongst older Australians may become an even more serious public health challenge in the coming years.

Despite the potential public health risks associated with alcohol use amongst older people, relatively little research in this area has been conducted in Australia [10]. Research which has been conducted has for the most part focused on biomedical aspects of alcohol use amongst older people (65 years+), rather than considering the social dimensions associated with older adults' alcohol use. This includes the ways in which the social context influences alcohol use, as well as the psychosocial benefits ensuing from the social interaction that often go hand in hand with alcohol use [11-15]. This is significant, given research which suggests that sociability is one of the main reasons that older people drink alcohol [15, 16], together with a large body of evidence indicating that social connections are integral to older people's health and wellbeing. Benefits associated with social interaction have been well documented in the social science literature, with social engagement and connectedness found to influence physiological health [17-22], cognitive function [23-25], and psychosocial wellbeing [21, 26]. In contrast, older people with limited social interaction and support networks have been found to be more at risk of depression [27], and of being admitted to aged care

facilities due to deteriorating mental and physical health [28]. In light of this, facilitating opportunities for social interaction can be seen as important determinants of health for older people. Indeed, as Kohli and colleagues have noted, "maintaining social connectedness through the transitions of later life … is an important prerequisite for 'successful ageing'" [29, p. 327].

The relationship between social connectedness and alcohol use is complex, and to date no published Australian research has been conducted to explore in detail the links between the context in which older people socialise and their alcohol use, and the social processes which influence the alcohol use of older Australians in different residential settings. As such, the current investigation aimed to improve our understandings of the associations between social context, living arrangements and alcohol use, and to focus attention on the meanings older people ascribe to their alcohol use.

In particular, this research investigated the relationship between type of residential living arrangement and consumption of alcohol amongst a group of older Australians aged 65 to 74 years. While older people live in a range of different settings, previous research has identified retirement villages as being associated with high levels of social engagement [12, 13], with alcohol use noted as a common feature amongst residents [12, 13, 30, 31]. Such studies draw attention to the role that the increased socialisation opportunities available in retirement villages may play in facilitating or restraining alcohol consumption.

This project therefore addressed a significant need by investigating the association between social context and alcohol use amongst older people living in two different settings (private homes versus retirement villages). Specifically the research explored the following areas:

1. Socialisation and Alcohol: An examination of the meanings older Australians ascribed to their alcohol consumption practices;
2. Setting and Alcohol Use: An examination of the use of alcohol by older men and women living in private dwellings versus retirement villages; and
3. Risk and Restraint: An examination of those factors that lead to increased use of alcohol and those factors that restrained consumption in different settings.

# Research design

## Overview

This project adopted a mixed-methods research design, using both qualitative and quantitative methods to explore the links between older Australians' alcohol consumption and social context.

## Components of the research questionnaire

The quantitative component of the project involved the collection of demographic and alcohol consumption information using questions that had appeared in the 2010 National Drug Strategy Household Survey [32]. The demographic questions gathered information on: gender; age; postcode of residence; marital status; country of birth; employment status; main occupation; and education. The three alcohol consumption questions asked about usual alcohol consumption (Q21); quantity and frequency of consumption (Q22) and alcohol consumption on the day prior to the interview (Q23). In addition, the four item CAGE [33] screening instrument was also used to assess the degree of potential alcohol-related problems amongst the sample.

There were 16 qualitative questions included in the questionnaire and these aimed to elicit information about the relationship between social interaction and activities, living arrangements, and alcohol consumption, in order to provide deeper understandings and context to the quantitative data.

The qualitative questions were reviewed and revised by all investigators before being pilot tested with one female aged 67 years. Based upon the pilot testing process the research questionnaire was further refined before data collection began. For a copy of the questionnaire see Appendix 1.

## Interviewer

The research assistant (RA) employed to conduct the interviews for this research had previously worked on an FARE funded project that involved face to face interviews with older people related to alcohol. Before interviews commenced two meetings took place between the interviewer and the first two Chief Investigators (CIs) of the project. At these meetings the RA was provided with an overview of the study; contact details for the first two CI's; information on recording responses; procedures for entering participants' homes (e.g. displaying the Edith Cowan University ID badge); and mechanisms for reporting or clarifying problems. The RA also had a mobile phone for safety and logistic purposes, was provided an opportunity to role-play two mock interviews before formally commencing interviews, and participated in pilot testing the questionnaire, in conjunction with the second CI.

## Procedure for gaining ethics clearance

This research adhered to the guidelines in the National Statement on Ethical Conduct in Research Involving Humans [34] and Edith Cowan University's policies as outlined in the Conduct of Ethical Research Involving Human Subjects [35]. Before the project commenced ethical approval was granted by the Edith Cowan University Human Research Ethics Committee.

## Recruitment

To be eligible for inclusion, participants had to be aged between 65 and 74 years inclusive, have had a drink of alcohol in the 12 months prior, be English speaking, and live in either a secular resident funded retirement village or a private residence in the greater Perth metropolitan area. The sample was divided into two groups dependent on type of residence. Initially the recruitment strategy was to recruit participants from two large retirement villages (one located in the northern and one in the southern suburbs of Perth). These two villages were selected as they were both managed by the same organisation, were two of the larger retirement villages in the greater Perth metropolitan area, and were convenient because of existing professional connections with a member of the Board of Management. The Managers at both villages were contacted by telephone and agreed to participate. Depending upon individual retirement village requirements, Managers were then given a package of recruitment flyers (see Appendix 2 for a copy of the recruitment flyer) to be either hand distributed by them to residents' letter boxes, or distributed at the next scheduled Residents' Meeting. One Manager also agreed to insert an electronic copy of the recruitment flyer in the next monthly residents' newsletter, and Managers were also encouraged to place copies of the recruitment flyer on noticeboards. To recruit individuals living in private residences in similar suburbs to the selected retirement villages, advertisements calling for volunteers were then placed in local community newspapers including the Subiaco Post (copy of insertion included in the Appendix 3), the Claremont Post and the Melville Times.

While the initial strategy worked well with one retirement village (for example, over 25% of the retirement village sample was drawn from one village), only one participant was recruited from the second targeted village. As a result, the catchment area was widened and the Managers of seven additional retirement villages (located in similar Socio-Economic Indexes for Areas (SEIFA) suburbs) were sent an initial letter outlining the proposed project, and were followed up with a phone call to answer questions they may have about the research. In addition, the first two CIs made a visit to two of these retirement villages to meet with the Manager and further explain the research.

The first two listed CIs telephoned Village Managers approximately one week after recruitment flyers had been delivered to discuss progress and to provide any additional information. During the course of these conversations, feedback from some of the Managers suggested that one reason for difficulties in recruiting was that residents in their village tended to have an older age profile than the required sample of 65 to 74 years. For example, the Manager of a retirement village in a southern Perth suburb indicated the average age of residents was 84.6 years. This may reflect changing demographics, with an ageing population who delay moving into retirement facilities until their mid 70s. It is also possible that the challenges encountered during the recruitment of retirement village participants were at least in part due to the 'gate-keeping' role that retirement village Managers played in recruiting participants. Although sufficient numbers of recruitment flyers were delivered either by hand or post to the Managers, it is not possible to determine how many were actually distributed to residents either in their letter boxes or at Residents' meetings. It is also not feasible to measure residents' exposure to the flyers via noticeboards or monthly residents' newsletters, in order to determine the relative effectiveness of this form of recruitment.

There is also the potential for the purpose and nature of the research to be misinterpreted by the Managers in their communication with retirement village residents, which may occur when the CIs do not have direct access to potential participants. To address the potential for this to occur in future research with retirement village residents, it may help to arrange with the retirement village Manager for the CIs to personally address a Residents' meeting to explain the research and answer any questions that residents may have. This may help to allay potential concerns about participating in the research, ensure a more consistent message is communicated concerning the purpose and nature of the research, and also confirm that recruitment materials have been disseminated to residents.

To supplement the recruitment of individuals living in private homes, a range of strategies was employed. As well as the advertisements placed in local community newspapers, representatives from a range of recreational, service and advocacy organizations affiliated with older people were contacted and asked if they would agree to either forward recruitment flyers to members, or place a copy of the recruitment flyer on club noticeboards or other appropriate places where members would be exposed to them. These organizations included bowling clubs, senior citizen centres, Rotary clubs and independent retirees' associations located in similar SEIFA suburbs to the retirement villages targeted in the research. Participants were also recruited through advertisements placed on Curtin Radio. One other 'informal' recruitment strategy was the

placement of recruitment brochures in a local Gone Bazaar store, with five participants recruited through this method. Table 1 provides an overview of sources of recruitment:

**Table 1: Sources of recruitment**

| Source of Recruitment | Number of participants recruited |
|---|---|
| **Recruitment materials distributed to Retirement villages** | 19 |
| **Word of mouth** | 10 |
| **Claremont Post newspaper** | 2 |
| **Gone Bazaar Joondalup** | 5 |
| **Bowling clubs** | 3 |
| **Curtin Radio** | 3 |
| **TOTAL** | 42 |

Included on the recruitment flyer and the advertisements placed in local newspapers were contact details for the study. Potential participants were encouraged to contact a RA employed to manage enquiries, and the contact details for the first CI were also included should participants have any further queries or want additional information. The RA provided details about the study and ensured participants met the inclusion criteria, and then forwarded an information package (which included a background letter on the study and an informed consent letter- see Appendices 4 and 5). There were three people who volunteered for the study but did not meet inclusion criteria (two were outside the age range and one was in a suburb that was outside the greater Perth metropolitan area and whose postcode did not match the SEIFA of other recruited participants). With participants' consent, the RA then forwarded their contact details to the female RA employed as an interviewer for the study. This RA then telephoned participants to arrange the interview which was conducted in each participant's home.

## Data collection

At the beginning of each interview, participants were informed of the nature of the research and their written consent to participate was requested. Once this had occurred all interviews were then digitally recorded, and hard copy notes were also kept to record answers to quantitative questions, as well as any additional information to support the qualitative component. All information was de identified prior to any analysis or transcribing and hard copies of all material were stored in a locked filing cabinet in the first CI's office at ECU. All participants were given a $25.00 Coles/Myer voucher at the conclusion of the interview in appreciation of their time.

## Sample group

The final sample was made up of 20 men and 22 women aged 65-74 years. The demographic information collected provided context to the research findings, particularly in relation to highlighting differences between participants living in retirement villages and those living in private residences. The average age of all participants was 70 years. There was an almost equal distribution of female (n=22, 52%) and male participants (n=20, 48%) living in either a private residence (n=22) or in a retirement village (n=20). The majority of men and women living in private homes were married and over half of the sample had received a post school qualification, with 25% of the women having a diploma and 50% of the men having a Bachelor's degree or higher qualification. In contrast a larger proportion of both men and women living in retirement villages were single (either as a result of being widowed, divorced/separated or never married), and only 20% of the women had a diploma or above and only 20% of the men had a Bachelor's degree or higher qualification. When postcode details for participants were linked to SEIFA codes [36], there were no differences across groups, with all participants drawn from the top 3 SEIFA categories, indicating higher levels of socio-economic advantage. For more detail see Table 2.

**Table 2: Demographic information on participants**

| | Private home | | | | Retirement village | | | |
|---|---|---|---|---|---|---|---|---|
| | Men | | Women | | Men | | Women | |
| | M | S.D. | M | S.D. | M | S.D. | M | S.D. |
| **Age of participants** | 69.7 | 3.3 | 69.6 | 2.4 | 69.7 | 3.93 | 69.6 | 2.4 |
| **Marital status** | **n** | **%** | **n** | **%** | **n** | **%** | **n** | **%** |
| **Married** | 9 | 90 | 11 | 92 | 6 | 60 | 5 | 50 |
| **Widowed** | 0 | 0 | 1 | 8 | 2 | 20 | 2 | 20 |
| **Divorced** | 0 | 0 | 0 | 0 | 1 | 10 | 2 | 20 |
| **Separated but not divorced** | 1 | 10 | 0 | 0 | 0 | 0 | 1 | 10 |
| **Never Married** | 0 | 0 | 0 | 0 | 1 | 10 | 0 | 0 |
| **Highest year of primary or secondary education** | **n** | **%** | **n** | **%** | **n** | **%** | **n** | **%** |
| **Did not go to school** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Primary school** | 0 | 0 | 0 | 0 | 1 | 10 | 2 | 20 |
| **Secondary school to Year 10** | 5 | 50 | 6 | 50 | 5 | 50 | 6 | 60 |
| **Secondary school to Year 12** | 5 | 50 | 6 | 50 | 4 | 40 | 2 | 20 |
| **Highest qualification** | **n** | **%** | **n** | **%** | **n** | **%** | **n** | **%** |
| **No post schooling qualification** | 1 | 10 | 8 | 67 | 3 | 30 | 6 | 60 |
| **Trade certificate/non-trade certificate** | 2 | 20 | 1 | 8 | 3 | 30 | 2 | 20 |
| **Associate diploma/ undergraduate diploma** | 2 | 20 | 3 | 25 | 2 | 20 | 1 | 10 |
| **Bachelor degree/Masters degree /Doctorate or other postgraduate qualification** | 5 | 50 | 0 | 0 | 2 | 20 | 1 | 10 |

## Data analysis

The qualitative interviews were transcribed, and then two interviews were randomly selected for preliminarily coding into categories (see Appendix 6). Remaining transcripts were then coded using these categories. The results were then distilled into five main categories, which were linked to all three areas of investigation. The five categories were:

1. Social engagement activities (type and frequency);
2. Perception of the availability of alcohol at social engagement activities;

3. Perception of amount of alcohol consumed;
4. Perception of alcohol consumption between retirees living in private versus village residences; and
5. Pressure to amend alcohol consumption and self-induced and regulated methods to monitor alcohol consumption.

Descriptive statistics were undertaken with the quantitative data to examine drinking level variations between men and women, and between men and women using dwelling as the independent variable (i.e. crosstabs, one way ANOVA using SPSS software).

# Results

Results from the study will be linked to the three areas under investigation. These three areas were:

1. Socialisation and Alcohol: An examination of the meanings older Australians ascribed to their alcohol consumption practices;
2. Setting and Alcohol Use: An examination of the use of alcohol by older men and women living in private dwellings versus retirement villages;
3. Risk and Restraint: An examination of those factors that lead to increased use of alcohol and those factors that restrained consumption in different settings.

Throughout this report, supporting quotes are presented with the participant pseudonym (numerical identifier), gender (M=male, F=female) and type of residence (V=village, P= private residence).

## 1. Socialisation and Alcohol: An examination of the meanings older Australians ascribed to their alcohol consumption practices

The first area under investigation related to participants' observations and perceptions on the links between their social life and alcohol use, and involved analysis of data collected through both the qualitative questionnaire and qualitative interviews. Participants were asked to identify how often they participated in social activities in or outside the home, the nature of those activities, whether their level of social activity had changed over the last 10 years and if so in what ways, and then to consider how alcohol was associated with these social activities. As noted earlier, being socially engaged is an important determinant of older people's health, and is fundamental to 'ageing successfully' [29]. It is therefore promising to note that almost all participants in this research enjoyed a very healthy social life. Irrespective of whether participants lived in retirement villages or in private residences, the majority were involved in activities at least three times each week, with many also having a fully booked 'social calendar', with activities scheduled for every day of the week. Participants engaged in a range of social activities, including memberships in clubs or associations such as car and caravan clubs and rotary, through to happy hours in retirement villages, and unstructured activities with friends and family. An even distribution of participants living in private residences and retirement villages described a limited social life with little family contact, and relied upon spouse related activities for social interaction. A few respondents also valued their volunteer work as an important aspect of their social life.

In reflecting on whether their social activities had changed over the past 10 years, many indicated that while they were still just as social, the nature of their social engagement had changed over time:

> *Not more or less, but it is different. Instead of going out with work colleagues, now I meet in the club house or have dinner there – probably frequency is the same… The types of activities have changed. I do more during the day that I did before I retired, but probably go out a bit less in the evening.* *[24_F_V]*

Participants who indicated they were less social now than 10 years ago suggested many of their social activities had been work-related, and since retirement, opportunities to socialise had become limited. A few others indicated it was difficult to be as social as they grew older, as a result of friends or family moving away (overseas or interstate) or their partner passing away. One respondent also indicated health issues reduced his ability to socialise:

> *I've had problems with my hearing so get cut out when I can't hear what is going on. Over the last 5-6 years it has got worse. My hearing has affected what I do socially.* *[31_M_V]*

The majority who indicated they had become more socially active explained this was the result of more leisure time and less responsibilities, and notably for a few participants, the increased opportunities to socialise since moving to a retirement village:

> *There are always people moving through the café to say hello to. I think the village environment makes it much easier, because if you are in your own house there aren't so many things available to you in your immediate environment. There are plenty of things to go to - plenty of clubs and groups for everything you can think of.* *[24_F_V]*

> *Since moving into the village we have got to know different people. Tonight we are going to dinner with some people who we didn't know before moving here. We have formed a friendship with two other couples and we take it in turns and get together in each other's homes about three times a month. Yesterday the eight people we had were all from here, people whose homes we had been to and we were repaying hospitality. We definitely do more with our neighbours here than we would with neighbours in our private home.* *[3_F_V]*

While significantly more participants living in private residences described having regular family contact and engaging in club membership than their counterparts living in retirement villages, the latter were more likely to report high levels of social engagement. This is an interesting finding,

particularly in light of research which has identified links between greater socialisation and increased levels of alcohol consumption [12, 13]. While findings relating to social engagement and alcohol use across both settings are considered in detail in the following sections, at this point it is worth reflecting on the reasons why the different settings seem to be associated with different types of activities. For example, the lower levels of family contact and club memberships amongst retirement village participants may indicate that entering a retirement village reduces older people's need and/or desire for more frequent family contact or participation in other social networks. Alternatively, it may be that family members perceive their older relative is less dependent on them for assistance and companionship, as a result of the 'ready-made' community in the retirement village. While the small sample size and cross-sectional nature of this research precludes any definitive conclusions being drawn, further research with a larger sample of older people experiencing a transition from private residence to a retirement village would be useful to assess the ways in which moving to a retirement village influences older people's social networks and social activities, and how any resulting changes in the composition of social networks and social activities are associated with subsequent changes in alcohol use.

As with previous research [13, 14], the findings indicated a close association between social engagement and alcohol use, with alcohol viewed by many as a 'social lubricant':

> *I think it is a great means of socialising and loosening any social inhibitions. I don't see any harm in people enjoying a drink, though not to excess. It's a great social leveller.* [25_M_P]

It was also evident that many social events routinely included alcohol. Most commonly, almost everybody attending social gatherings, including the participant, consumed alcohol, although the majority of participants also noted that the consumption of alcohol not only depended on the type of social activity, but also who they were with and the time of day:

> *Depends on the people….It is the ambience of where you are. If I go to my sister's place, she doesn't drink and I wouldn't have a drink – just a cup of tea. If I go with the friends we would have a drink at lunch or sometimes I go away at the weekends with other friends and we'd always have a glass of wine with the meal, but definitely depends who I am with.* [20_F_P]

When asked to consider how their alcohol consumption at home compared to when they were involved in social activities outside their home, an even number of participants indicated there was either no difference between alcohol consumption at home or at outside social activities; that more alcohol was consumed at home; or that more alcohol was consumed at outside social activities. For those who suggested they consumed more alcohol at home, common reasons were that it was

easier to relax at home, therefore easier to consume more alcohol, and in addition they didn't have to worry about driving after drinking. Those who indicated they drank more alcohol during outside social activities suggested it was more social to drink with others.

In line with previous research on alcohol and older people [12, 13], there was an association between increased opportunities to socialise and increased levels of alcohol consumption. That is, where either a participant or their partner's alcohol consumption had increased over the past 10 years, it was most often explained by an increase in social activities during this period. In contrast, a few participants noted that a reduction in social activities over the past few years had limited their opportunities to consume alcohol.

In addition, a number of participants from both retirement villages and private residences noted that although the amount they drank had not increased over recent years, they now drank more frequently, a phenomenon which appeared to be associated with increased leisure time and reduced responsibilities since retirement, as well as having more opportunities to socialise:

> *With teaching, there is no time off – you go home and start marking papers and preparing for the next day, so there was not much opportunity [to consume alcohol]. Retirement has given me the chance to relax and also moving to the village has given me more opportunity to socialise with people of similar age.* *[41_M_V]*

> *We are drinking more now… not a lot more, but more frequently because we are more relaxed.* *[3_F_V]*

> *I probably drink a bit more now than I did 10 years ago because of the social thing. Not a bigger glass but maybe on more occasions. When you are in a married situation you come home and have a meal and [it] didn't used to enter my head – but now if I am out socialising, [I drink alcohol] a bit more.* *[20_F_P]*

As these comments suggest, although many participants perceived that the amount they drank on each occasion had not increased, an increase in the frequency of drinking had potentially resulted in an overall increase in their total alcohol consumption over a period of time. However, the cross-sectional nature of this research precludes identifying whether there had been any statistically significant increases in alcohol frequency and consumption over the last 10 years.

## 2. Setting and Alcohol Use: An examination of the use of alcohol by older men and women living in private dwellings versus retirement villages

To complement the exploration of social context and associations with alcohol use, the second area of examination focused on alcohol consumption amongst men and women in private homes versus retirement villages. When participants were asked for their perceptions on a potential link between living arrangements and alcohol use the results were mixed. The majority of participants believed there were no differences in the amount of alcohol consumed between people living in private residences versus retirement villages, with many commenting that alcohol consumption depended *on how social an individual was, rather than their place of residence, as reflected in this comment:*

> *I think you are either a social person and you enjoy a drink, and other people are not. You either mix or you don't.* *[35_M_V]*

However, of the remaining participants, many believed alcohol consumption to be higher amongst individuals living in retirement villages, with the regular planned social events on offer and the ready availability of companions identified as key factors facilitating alcohol use:

> *I think it might be more in a retirement village because they get together once a week for happy hour.* *[31_M_V]*

> *So they are encouraged by the social activity of getting together at least once a week or sometimes twice, to come down with a bottle and some nibbles. It is the encouragement to socialise and with socialisation goes a drink.* *[4_M_V]*

Moreover, as the following comment suggests, there was also a perception amongst a few participants that alcohol was a common fixture at retirement village activities:

> *They never seem to have get-togethers that don't involve alcohol, apart from morning tea. They have frequent get-togethers in the retirement villages.* *[20_A_P]*

Only a few participants suggested private residents would drink more than individuals living in retirement villages, either to manage loneliness, or because of a perception they can more freely purchase and consume alcohol without feeling they are being monitored:

> *Maybe some people if they are very lonely might be affected to some extent. Probably that would be the case more so in private homes. In a village you may have more contact, or it is available if you want it. Maybe if you are elderly and can't get around and are stuck in your home, there may be some people who might drink a bit more.* *[15_M_P]*

*I think there would be less inhibition having a drink in your own home, where in a retirement village you may be concerned about what other people might think.* *[25_M_P]*

Despite the perception amongst some participants that alcohol use may be different in retirement villages versus private homes, analysis of quantitative data on drinking preferences and alcohol consumption indicated that this was not the case. For example, as with previous research that has investigated gender and drinking preferences [30, 37, 38], the majority of men in both settings reported drinking either beer or wine and the majority of all women reported drinking wine. For more detail on alcohol preferences see Table 3.

**Table 3: Alcohol preferences of participants**

| Preference | Private Home | | | | Retirement village | | | |
|---|---|---|---|---|---|---|---|---|
| | Men | | Women | | Men | | Women | |
| | n | % | n | % | n | % | n | % |
| **Beer** | 4 | 40 | 0 | 0 | 5 | 50 | 1 | 10 |
| **Wine** | 6 | 60 | 7 | 58 | 4 | 40 | 8 | 80 |
| **Champagne** | 0 | 0 | 2 | 17 | 0 | 0 | 0 | 0 |
| **Sherry** | 0 | 0 | 1 | 8 | 0 | 0 | 0 | 0 |
| **Spirits** | 0 | 0 | 2 | 17 | 1 | 10 | 1 | 10 |

Similarly, as the results in Table 4 indicate, the majority of participants across both settings were drinking alcohol at least five to six days a week, and while women living in retirement villages were more likely to drink alcohol on a daily basis compared to women living in private homes, none of these differences were statistically significant. Nonetheless, the high proportion of daily drinking amongst women in retirement villages warrants future research with a larger sample, to explore possible associations between marital status, setting, and alcohol use. Such research would be useful, in light of previous findings indicating that married women were less likely to abstain, and to drink more heavily than those who were not married [39-41].

**Table 4: Frequency of alcohol consumption amongst participants**

| Gender | Residence | | Frequency of alcohol consumption | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | every day | 5-6 days a week | 3-4 days a week | 1-2 days a week | 2-3 days a month | less often | TOTAL |
| Men | Private home | n | 5 | 1 | 4 | 0 | 0 | 0 | 10 |
| | | % | 55.6 | 33.3 | 57.1 | .0 | .0 | .0 | 50.0 |
| | Retirement village | n | 4 | 2 | 3 | 0 | 1 | 0 | 10 |
| | | % | 44.4 | 66.7 | 42.9 | .0 | 100.0 | .0 | 50.0 |
| | TOTAL | n | 9 | 3 | 3 | 7 | 7 | 0 | 20 |
| | | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | .0 | 100.0 |
| Women | Private home | n | 2 | 3 | 1 | 3 | 2 | 0 | 11 |
| | | % | 28.6 | 75.0 | 100.0 | 50.0 | 100.0 | .0 | 52.4 |
| | Retirement village | n | 5 | 1 | 0 | 3 | 0 | 1 | 10 |
| | | % | 71.4 | 25.0 | .0 | 50.0 | .0 | 100.0 | 47.6 |
| | TOTAL | n | 7 | 4 | 4 | 1 | 1 | 1 | 21 |
| | | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| TOTAL | Private home | n | 7 | 4 | 5 | 3 | 2 | 0 | 21 |
| | | % | 43.8 | 57.1 | 62.5 | 50.0 | 66.7 | .0 | 51.2 |
| | Retirement village | n | 9 | 3 | 3 | 3 | 1 | 1 | 20 |
| | | % | 56.3 | 42.9 | 37.5 | 50.0 | 33.3 | 100.0 | 48.8 |
| | TOTAL | n | 16 | 7 | 7 | 8 | 8 | 1 | 41 |
| | | % | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Alcohol consumption was estimated three ways: usual consumption (Q21); quantity/frequency of consumption over the prior 12 months (Q22); and amount of alcohol consumed on the day before the interview (Q23). In response to Q22 (quantity/frequency) men in retirement villages reported drinking 3.1 standard drinks per day, while men in private homes reported drinking 1.9 standard drinks per day. Results from a series of one way ANOVAS with place of residence as the independent variable and consumption (based upon Q21, Q22 & Q23, refer Appendix 1) as the dependent variables indicated there were no statistically significant differences between men on any of the consumption measures. For more detail see Table 5.

**Table 5: Assessment of average daily alcohol consumption for men**

| Consumption question | Private homes | | Retirement villages | | F value | DF |
|---|---|---|---|---|---|---|
| | M | S.D. | M | S.D. | | |
| Q21 On a day that you usually drink, how many standard drinks do you have? | 2.38 | 1.25 | 3.50 | 3.18 | 1.08 | 1,18 |
| Q22 How often in the last 12 months have you had each of the following number of standard drinks in a day? | 1.89 | 1.40 | 3.13 | 4.38 | 0.73 | 1,18 |
| Q23 How many standard drinks did you have yesterday? | 2.76 | 2.93 | 3.25 | 3.78 | 0.10 | 1,17 |

Similarly, while women on average consumed approximately 1.4 standard drinks per day (based upon the quantity/frequency data) there were no statistically significant differences on any alcohol consumption measure amongst the women in the sample across the two residential settings. For more detail see Table 6.

**Table 6: Assessment of average daily alcohol consumption for women**

| Consumption question | Private homes | | Retirement villages | | F value | DF |
|---|---|---|---|---|---|---|
| | M | S.D. | M | S.D. | | |
| Q21 On a day that you usually drink, how many standard drinks do you have? | 2.17 | 1.41 | 2.10 | 0.89 | 0.02 | 1,19 |
| Q22 How often in the last 12 months have you had each of the following number of standard drinks in a day? | 1.21 | 0.84 | 1.68 | 1.13 | 1.24 | 1,20 |
| Q23 How many standard drinks did you have yesterday? | 1.95 | 2.70 | 1.62 | 1.68 | 0.11 | 1,20 |

Finally, gender was examined to investigate whether men were consuming larger quantities of alcohol than women. Although the majority of research investigating consumption and gender has consistently reported greater consumption amongst men as compared to women [32, 42, 43], there were no statistically significant differences in the current responses. Considering the standard deviations and the small sample size, such a finding is not surprising. Despite the lack of any

statistically significant differences, the results do suggest that further investigation of gender, setting and marital status would be useful to explore whether residential setting or marital status has the greater influence on consumption practices. Such research would be useful to examine whether drinking convergence is more likely to be linked to a partner's drinking, or associated with the normative perceptions of drinking within a social group. For a summary of results on alcohol consumption levels for men and women in both private homes and retirement villages see Table 7.

**Table 7: Results for alcohol consumption for men and women**

| | Men | | Women | | F value | DF |
|---|---|---|---|---|---|---|
| | **M** | **S.D.** | **M** | **S.D.** | | |
| **Q21 On a day that you usually drink, how many standard drinks do you have?** | 2.94 | 2.42 | 2.14 | 1.16 | 1.87 | 1,39 |
| **Q22 How often in the last 12 months have you had each of the following number of standard drinks in a day?** | 2.51 | 3.23 | 1.42 | 0.99 | 2.25 | 1,40 |
| **Q23 How many standard drinks did you have yesterday?** | 3.02 | 3.32 | 1.80 | 2.25 | 1.93 | 1,39 |

The final area of investigation linked to the role of setting and alcohol use concerned participants' scores on the CAGE [33] screening tool. The majority of men (56%) and women (68%) scored zero on the CAGE instrument (indicating no evidence of problem drinking). These figures were similar to previous Western Australian research that also investigated alcohol use amongst older people [30]. Using the cut-off score of 1 (as suggested by Buschbaum et al [44] and Dawe et al [45]), as indicative of problem drinking in older adults, there were no significant differences between the proportions of men and women who screened positive for problem drinking, independent of place of residence. This also supported previous research with a similar sample [30]. For more detail see Table 8.

**Table 8: CAGE score results for men and women collapsed to a score of zero or >=1.**

| Setting | Gender | CAGE score | | |
|---|---|---|---|---|
| | | 0 | >=1 | TOTAL |
| **Private home** | **Men** | 4 | 5 | 9 |
| | **Women** | 8 | 4 | 12 |
| **Retirement village** | **Men** | 6 | 3 | 9 |
| | **Women** | 7 | 3 | 10 |
| **TOTAL** | **Men** | 10 | 8 | 18 |
| | **Women** | 15 | 7 | 22 |

(z-score indicated no significant differences)

In summary, while the perception of some participants was that there were likely to be differences in alcohol consumption amongst men and women dependent on living arrangements, this was not borne out in the quantitative data. However, the role of perception and drinking norms has been investigated in younger people and found to influence drinking practices [46], and previous research has pointed to an association between alcohol and the process of integration into a retirement village 'subculture' [13]. As such, further exploration with a larger sample of older drinkers that investigates marital status, perceptions and expectations, living arrangements and alcohol consumption would be useful, particularly in relation to how these variables may restrain or facilitate alcohol consumption. Certainly there was some evidence in the qualitative interviews that perceptions of being 'monitored' had the potential to influence alcohol consumption:

> *I think there would be less inhibition having a drink in your own home, where in a retirement village you may be concerned about what other people might think.[25_M_P]*

Likewise, it may be that the more frequent opportunities for social interaction in retirement villages may play a normative role [13, 46] in relation to alcohol consumption, and either restrain alcohol use, or conversely facilitate increased levels of alcohol consumption, in line with social norms amongst the residents. This may also help to explain why women living in retirement villages appeared to be more likely to drink alcohol on a daily basis that women living in private homes. One explanation for this may be that the higher proportion of single women living in retirement villages in this sample are encouraged to drink more frequently as a result of their opportunistic access to regular and easily accessible social activities in which alcohol is readily available. Again, further research with a larger sample would help to illuminate more clearly the role that social context and normative practices may play in relation to alcohol use, particularly amongst older women.

As indicated in the results in Table 9, based on the responses for Question 22 (quantity/frequency), 30% of the research sample was drinking above the current drinking guidelines for lifetime risk, and 25% of the men were drinking at levels which placed them at risk of short term harm at least once per month. While the figures for men are similar across both the research sample and the results from the 2010 National Drug Strategy Household Survey [32], the figures for women indicate that in the current sample, much larger proportions were drinking at risky levels. Although this purposive sample of older people was not representative of older Australians in general, and only included current drinkers, these findings still have implications for prevention and health promotion, and are suggestive that current drinking guidelines need to be promoted more effectively to older Australian drinkers.

**Table 9: Comparison with data for 60-69 years olds as reported in the AIHW 2010 NDSHS**

| | NDSHS 2010 (60-69 years) | | Research sample | |
|---|---|---|---|---|
| | **Men (%)** | **Women (%)** | **Men (%)** | **Women (%)** |
| **Daily drinking** | 17.8 | 8.8 | 45 | 32 |
| **Lifetime risk (>2 standard drinks/day)** | 27.9 | 7.5 | 30 | 33 |
| **Single occasion (>4 standard drinks on any occasion at least 1/month)** | 26.9 | 4.8 | 25 | 13.6 |

## 3. Risk and Restraint: an examination of those factors that lead to increased use of alcohol and those factors that restrained consumption in different settings

The third research area investigated factors that may have facilitated or restrained participants' use of alcohol across the different settings. While the quantitative analysis revealed no statistically significant differences in the quantity of alcohol consumed amongst the sample, analysis of the qualitative data suggests that living arrangements appear to play a role in both facilitating and restraining alcohol use. Key facilitating factors for participants living in retirement villages included the frequency of social activities and the availability of a "readymade social group", as well as the convenience of not having to drive home after an event.

Many participants living in retirement villages explained it was easier to socialise (and therefore consume more alcohol) in a retirement village due to the immediate proximity to other people, while a few others suggested the freedom of socialising and living in a retirement village meant they did not have to worry about driving home, and therefore did not have to limit or monitor their alcohol consumption:

> *There are more social occasions here [in the retirement village] where I don't have to drive afterwards. Previously going out I would have to keep in mind that I would have to drive home. The socialisation in the village means that I may drink more than if I go outside. [24_F_V]*

> *People in private home have to drive home. In the village we have a readymade social group who we can enjoy and drink and have a meal with and don't have to drive home. Drinking is a social thing and a lot of people don't have a drink by themselves and here there are a lot of social activities. [24_F_V]*

One participant also found they had more time to socialise and relax (and consume more alcohol) in a retirement village when compared to living in a private residence, as less time was spent on household chores such as gardening and cleaning:

> *It is the village lifestyle that involves relaxation. I find wine relaxes me. There are more opportunities to have a drink and less work and less responsibility. [3_F_V]*

Perhaps not surprisingly, the major restraining factor limiting alcohol consumption for participants was having to drive home after drinking, with many participants referring to driving as a key factor determining whether they drank alcohol at social activities or not, as the following comment highlights:

> *If I know I have to drive I will just have a light beer, or sometimes I will just go without altogether. I find that easier because you don't have to worry about whether you have gone over the limit. Driving has killed a lot of social drinking, particularly living down here [an outer metropolitan suburb]. If I'm in Perth, I very seldom drink, if at all. It is a long drive and I'm not only worried about RBT [random breath testing], but don't want to feel sleepy. It's the driving mainly that would affect whether or not I will have a drink. [41_M_V]*

Such comments highlight participants' concerns with limiting alcohol consumption if they have to drive. Indeed, worry about drinking and driving was a common theme emerging from the interviews:

> *If I'm out and about I am more aware of being pulled up by police, and as you get older you don't want that to happen. Even if [husband] is driving home, I prefer to be aware of what is going on around me... so probably drinking less because of that.* *[26_F_P]*

As this participant's comments suggest, it may be that older people have a greater appreciation of the social and financial costs of drink driving, and are perhaps more responsive to health promotion messages. The restraining influences of current policy need to be taken into account in discussions of strategies to reduce drink driving risks. For example, improved public transport, or 'skippers' are often offered as approaches that will reduce the risk of drink driving. An unintended adverse consequence might be the removal of drinking restraints for at least some people. Significantly, only one participant indicated health as a constraining factor.

In addition to these key factors facilitating and constraining alcohol use, there was also evidence that many participants actively managed their alcohol consumption. For example, many participants referred to strategies they had adopted to monitor or self-regulate their drinking. As the following comment suggests, such strategies are likely to be related to health concerns for at least some older people:

> *I think as you get older you have to taper off. You are a fool if you don't. It affects you a lot more and if you look at the effects of alcohol, it does more harm than cigarettes.* *[27_M_P]*

The majority of participants indicated they used a range of strategies to manage alcohol use, with the most common being to delay the first drink of the day until after a certain time:

> *At home we would never drink wine at lunch. We don't even have a drink before 6pm if we are home. If I went to lunch I would have a glass of wine.* *[3_F_V]*

For some participants, such practices appear to represent a conscious strategy to limit alcohol consumption. For example, when asked the question "Do you always consume alcohol during social activities or does it depend on the type of activity?", a female participant replied:

> *Only if it is in the evening. I don't like drinking during the day, and would only have the odd drink during the day. Once I have a drink I would tend to keep drinking. I don't normally drink before 6pm. Those are my internal rules, it limits the alcohol intake. I don't feel right after drinking during the day which is why I tend not to.* *[41_ F_P]*

Figure 1 highlights all strategies participants employed to regulate their level of alcohol consumption. The text size relates to the frequency with which these strategies were mentioned during the interviews.

**Figure 1: Strategies employed by participants to regulate alcohol consumption**


As well as strategies used to limit alcohol consumption, a number of participants also drew attention to personal rituals or habits which they identified with their alcohol use. The majority of participants associated the practice of drinking with leisure, and implied that they like to drink to relax. Such a perspective is reflected in the following comments:

> *We have a ritual, Ringo [pet dog] and I. [Wife] rings me when she is about to leave work and it is about 20 minutes to drive home. We sit out the front, him on the leash and I'll have a glass of wine. That will be my first for the day. When I know she is about 2 to 3 minutes away, I pick him up and we will sit on the letterbox and wait for mum to come home. It is a ritual that he enjoys and gets quite excited about. [29_M_P]*

> *Since we retired we stop work at 4.30 and sit down to have a drink. The kids laugh about it because when we had the little grandchild, we'd come and get the wine glasses and get the juice for him and we'd have his juice in a wine glass. You don't feel like you are alcoholics but I said to [husband], if you don't sit down and stop, you keep working until tea is ready – you*

*sit down and have your tea and haven't relaxed... so we've sort of fallen into that habit. We enjoy it so that's what we have come to do. [1_F_P]*

At least one participant likened her alcohol use to a habitual behaviour that was linked to other routine practices such as meal preparation:

*I suppose it's a habit. When I start cooking tea I might have a wine. That just seems to be the right time that I feel like it.* [12_F_P]

## Older people's perspectives on alcohol use

Although not identified as a specific research question, the participants were also encouraged to voice their opinions regarding alcohol use in Australia. Their responses provide a useful overview of perspectives on this issue, particularly for practitioners working in this area, and the health promotion field more broadly. The majority of participants who responded to this question were not concerned with alcohol use amongst older Australians, but were very passionate about younger people's problematic use of alcohol, as the following comments indicate:

*Today there are ladies lying in the street and blokes lying in the corner. It [drinking] is heavier and they drink to excess.* [35_M_V]

*It is the young Australians that shouldn't be drinking. The oldies seem to be ok. You don't hear about too many oldies bashing their car up or knocking anybody over the head... it's a worry, it's terrible.* [30_F_V]

In contrast, opinions on alcohol use amongst older people were overwhelmingly positive, as suggested by the following comment:

*I think it does older people a world of good to relax and have a drink. I don't think it hurts anybody to have a glass of red…I think it relaxes them.* [21_F_P]

Many participants also believed that older Australians have earned the right to drink, and are responsible enough to make safe decisions regarding their own level of alcohol consumption. Comments such as "alcohol is good in moderation" [42_M_V] and "alcohol in moderation can't kill you" [12_F_P] exemplify such perspectives.

In addition, there was some evidence that public health messages about alcohol which are directed to older people have the potential to be interpreted as ageist and paternalistic, as suggested in the following comment:

> *I think some of the vitriol needs to be toned down a bit. People need to recognise that you are who you are and make your own decisions and as long as you are not being stupid, like driving drunk or hurting people, then I think you should be able to live your life the way you want to live it.* [29_M_P]

These views raise several issues. Firstly, to some degree these comments signal a rejection of some of the more strident health advice directed to older people. Secondly, they reveal a tendency in this sample of older people to focus on the costs of drinking to others, without also considering the personal health consequences which can be associated with even moderate drinking for older people with chronic health conditions and/or those on medication. This suggests that future health promotion actions targeting older people should aim to 'pitch' the message in ways that demonstrate respect for older people as individuals, and which resonates more with older people's lifestyles and sensibilities. In addition, participants' references to 'drinking in moderation' suggest a need to 'deconstruct' this concept so that older people have a clear understanding of what constitutes 'moderate' alcohol consumption, and how it relates to the current NHMRC guidelines.

# Conclusions

This FARE supported research provides important information concerning the drinking habits of a sample of older men and women. To date, there has been little exploration of alcohol use amongst older Australians, and in particular little if any research that has explored in depth the connection between socialisation, living arrangements and alcohol. One of the key findings in this research was that alcohol served an important social function, irrespective of setting, and was viewed as an enjoyable part of life. This may explain why a significant proportion of the sample was drinking above the NHMRC drinking guidelines. The perception was that alcohol enhanced many social activities, highlighting the view that alcohol 'in moderation' had more benefits for older people than problems. While the research literature indicates that health is an ameliorating factor for drinking [16, 47, 48], only one participant identified health as a restraining factor for alcohol. However, this is possibly due to the relatively young age of our sample and the selection criteria used, which required participants to be current drinkers.

This research also indicated that older people may possibly drink more frequently in retirement villages than in private homes, but not necessarily consume greater quantities of alcohol; this highlights the complex role of the social context in both facilitating and restraining alcohol use. In particular, participants identified driving as a key factor which influenced drinking frequency. While participants across both settings identified driving as a key factor constraining alcohol use, the converse also applied in relation to alcohol use amongst retirement village participants; a major facilitator for alcohol use amongst this group of participants was that they did *not* have to drive home after village-based social activities.

Finally, the research was also suggestive that women in retirement villages may be drinking more frequently than their counterparts living in private residences. This may be explained by a number of factors, including greater levels of social engagement by single women in retirement villages, which in turn facilitates more opportunities to drink alcohol. It may also reflect the role of normative drinking practices within particular retirement village communities. With the increased proportions of single older women over the past decades, and evidence indicating that women in general are drinking at higher levels than previous generations [49], it is important that a focus on drinking amongst older women is maintained.

In exploring these issues, the present research has therefore filled an important gap in the literature, as well as responding to recent calls for qualitative research investigating social context and health-related behaviours [50].

## Implications for policy and practice

It is important from a policy perspective to acknowledge the relationships between alcohol use, social engagement and older people's health and wellbeing. Health promotion messages targeting alcohol use amongst older people need to be age-appropriate, age-specific, not be open to interpretation as paternalistic or ageist, and better reflect the drinking practices of this group. Such information needs to be disseminated through a wide range of channels, including retirement villages, and utilise a holistic approach that acknowledges the psychological, physical and social needs of older people [51].

## Future research

This research has highlighted the important role of social context, and how socialisation differs between private homes and retirement villages. Future research is now required with a large representative sample in order to identify the quantitative and qualitative associations between gender, marital status, social connectedness and social context, living arrangements, and drinking. This will enable identification of predictors of alcohol use amongst older people, and subsequently provide an evidence base for the development of an age-appropriate health promotion programs.

# Appendix 1

## Edith Cowan University

## NDRI, Palmerston Association Inc

## Research Questionnaire

**Firstly, what we're trying to explore here are some of the connections between alcohol and the social lives of Australians 65 and older, and we'd like to get your perspective on this. So can you tell me a little bit about yourself, and your social life?**

**(Prompts:** marital status, family situation (children, grandchildren, siblings etc.), work history, interests etc.; what prompted you to move to the retirement village?)

***(nb. some information offered here may relate to questions which appear further on in the questionnaire, in which case there is no need to repeat questions)***

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

## Research Questionnaire

Participant ID ☐☐☐☐

I need to get the following details to make sure that the people we survey represent a cross section of the older community

(Please tick the box that applies)

1. Is the participant male or female? Male ☐ Female ☐

2. Could you please tell me how old you are? Age in years ☐☐

*(if person is not within the 65-74 year inclusive age range discontinue interview)*

3. What is your current marital status?

| | | |
|---|---|---|
| Married (including defacto) ☐ | Widowed ☐ | Divorced ☐ |
| Separated but not divorced ☐ | Never married ☐ | |

4. Are you of Aboriginal or Torres Strait Islander origin? Yes ☐ No ☐

5. In which country were you born?

| | | | | |
|---|---|---|---|---|
| Australia ☐ | China ☐ | Germany ☐ | Greece ☐ | Hong Kong ☐ |
| India ☐ | Ireland (republic of) ☐ | Italy ☐ | Lebanon ☐ | Malaysia ☐ |
| Malta ☐ | Netherlands ☐ | New Zealand ☐ | Philippines ☐ | Poland ☐ |
| South Africa ☐ | Turkey ☐ | United Kingdom (England, Scotland, Wales, Northern Ireland) ☐ | | USA ☐ |
| Vietnam ☐ | | | | Yugoslavia (the former) ☐ |
| Other (please write in) ☐ | | | | |

6. (*If not born in Australia ask the person)*: In what year did you first arrive in Australia to live here for one year or more?

Year--- ☐☐☐☐ Not applicable ☐

7. What is the main language spoken at home? *(Mark one response only)*

| | | |
|---|---|---|
| English ☐ | Arabic (including Lebanese) ☐ | Cantonese ☐ |
| Greek ☐ | German ☐ | Italian ☐ |
| Mandarin ☐ | Serbian/Croatian ☐ | Spanish ☐ |
| Vietnamese ☐ | Other Asian language ☐ | Other European language ☐ |
| Other------ ☐ | | |

8. Which of the following best describes your main current employment status? Are you....

| | |
|---|---|
| Retired or on a pension ☐ | Solely engaged in home duties ☐ |
| Employed for wages, salary, or payment in kind ☐ | Self employed ☐ |
| Volunteer/charity work ☐ | Other – please specify ☐ ---------- |

9. Have you ever been in paid work? Yes ☐ No ☐ *(if no, go to Q.12)*

10. What kind of work did you do (or do you do) when you last worked? *(Ask them to describe the job in which they worked most hours only)*

Title…….
Main duties/tasks……..

11. What kind of industry, business or service was/is carried out by your main employer? *(Ask them to describe as fully as possible eg. Plumbing, footwear manufacturing, real estate, road freight transport, book retailing, dairy farming etc.)*

---

---

12. What is the highest year of primary or secondary school you have completed?

| | | | |
|---|---|---|---|
| Did not go to school | ☐ | Year 9 or equivalent | ☐ |
| Year 6 or below | ☐ | Year 10 or equivalent | ☐ |
| Year 7 or equivalent | ☐ | Year 11 or equivalent | ☐ |
| Year 8 or equivalent | ☐ | Year 12 or equivalent | ☐ |

13. Have you completed a trade certificate or other educational qualification?

Yes ☐ No ☐ (if no, go to Q. 15)

14. What is the highest qualification that you have obtained?

| | | | |
|---|---|---|---|
| Trade certificate | ☐ | Non-trade certificate | ☐ |
| Associate Diploma | ☐ | Undergraduate Diploma | ☐ |
| Bachelor Degree | ☐ | Doctorate | ☐ |
| Masters Degree, Postgraduate Degree or Postgraduate Diploma | | | ☐ |

15. How many years have you lived in this residence/retirement village? ☐☐

15a. ***(Question for retirement village participants only).***

Have you lived in any other retirement villages? yes ☐ No ☐

(*if so for how many years how many years have you lived in different retirement villages (including this one and any others before now)*? ☐☐

Thanks, I will now move onto the next part of the survey: please note, the following set of questions is drawn from a national survey which is conducted in Australia every 3 years, called the National Drug Strategy Household Survey. Collecting this data from you will allow us to make comparisons with existing information on older Australians and alcohol. ***(nb. Might help to explain that some of the questions may be a little confronting, but if we are to make valid comparisons, we need to adhere to this format!)***

16. What type of alcohol is your main drink, the one you drink most often?

---

17. What other types of alcohol do you usually drink?
*(Mark all that apply)*

| | | |
|---|---|---|
| Cask wine ☐ | Low alcohol beer (1% to 2.9%) ☐ | Premixed spirits in a can (Eg. UDL, Jim Beam and Cola) ☐ |
| Bottled wine ☐ | Home brewed beer ☐ | Premixed bottles (e.g.) Bacardi breezers, sub-zero, lemon ruski/stolis) ☐ |
| Regular strength beer (> 4%) ☐ | Fortified wine, port, vermouth, sherry etc? ☐ | Bottled spirits and liqueurs (e.g. scotch, brandy, vodka, rum, Kahlua, midori, baileys etc) ☐ |
| Mid strength beer (3% to 3.9%) ☐ | Cider ☐ | Other (please specify) ☐ |

18. About what age were you when you had your first **full** serve of alcohol? *(e.g a glass of wine, a whole nip of spirits, a glass of beer, etc.)*

Age in years ☐☐ unsure ☐

19. In the last 12 months, how often did you have an alcoholic drink of any kind?
*(mark one response only)*

| | |
|---|---|
| Every day ☐ | 5 to 6 days a week ☐ |
| 3 to 4 days a week ☐ | 1 to 2 days a week ☐ |
| 2 to 3 days a month ☐ | About one day a month ☐ |
| Less than one day per month ☐ | Less often ☐ |

20. Where do you usually drink alcohol? *(Mark all that apply- explain that stems may appear unusual for older people but need to ask to match existing data)*

| | | | |
|---|---|---|---|
| In your own/partner's home | ☐ | At a friend's house | ☐ |
| At a party at someone's house | ☐ | At raves/dance parties | ☐ |
| At restaurant/cafes | ☐ | At licensed premises (e.g. pub/club) | ☐ |
| At school, TAFE, University etc | ☐ | At my workplace | ☐ |
| In public places (e.g. parks) | ☐ | In a car or other vehicle? | ☐ |
| Somewhere else? (specify) | ☐ | | |

21. On a day that you have an alcoholic drink, how many standard drinks do you usually have? *(Show the participant the pictures of standard drinks taken from the NDSHS)* ☐☐

22. How often in the last 12 months have you had each of the following number of standard drinks in a day?

| No. of drinks | Every day | 5-6 days a week | 3-4 days a week | 1-2 days a week | 2-3 days a month | About 1 day a month | Less often | Never |
|---|---|---|---|---|---|---|---|---|
| **20 or more standard drinks a day** | | | | | | | | |
| **11-19 standard drinks a day** | | | | | | | | |
| **7-10 standard drinks a day** | | | | | | | | |
| **5-6 standard drinks a day** | | | | | | | | |
| **3-4 standard drinks a day** | | | | | | | | |
| **1-2 standard drinks a day** | | | | | | | | |
| **Less than 1 standard drink per day** | | | | | | | | |

23. How many standard drinks did you have yesterday?

No. of drinks ☐☐

(if less than one please indicate to the nearest fraction: ¼ ☐ ½ ☐ ¾ ☐ )

24. Have you ever had any concerns about your health in relation to alcohol?

Yes ☐ No ☐

Comments:

_____

_____

_____

25. Have you ever felt you ought to cut down on your drinking? Yes ☐ No ☐

26. Have people ever annoyed you by criticising your drinking? Yes ☐ No ☐

27. Have you ever felt bad or guilty about your drinking? Yes ☐ No ☐

28. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover? Yes ☐ No ☐

**The next part of the survey aims to find out some information on the connections between alcohol and social activities, so it may be that we cover some similar ground to your previous comments.**

29. In the last five/ten years, do you think you've become more or less socially active? (*For RV participants*) has this changed since moving to the village?

---

---

---

---

30. What type of social activities do you participate in? (eg. bingo, bowls, family functions? – are they mainly with family or friends, or both? etc.)

---

---

---

---

---

31. How often would you participate in these social activities (daily, weekly, monthly etc.)?

---

---

32a. Is alcohol usually available at these social activities?

Yes ☐ No ☐

Comments: ----------

---

32b. Do most people have a drink of alcohol at these social activities if it is available?

Yes ☐ No ☐

Comments: ----------

---

32c. …and what about you? *(that is, do you always, or almost always, have a drink at these social activities?)*

Yes ☐ No ☐

Comments: ----------

---

33. For you personally, can you tell us a little bit about any connections between social activities and your use of alcohol? *(Prompt: before, during, after activity; type of alcohol etc.)*

---

---

---

---

---

34a. Are there any activities where you are you more likely to drink alcohol either during or before or after the activity? Why do you think this might be the case?

*(Prompt: might this be dependent on who is there (eg.men/women, family members, friends, age etc.); the time of day; availability of alcohol; type of activity (eg. strenuous physical activity etc.)?*

---

---

---

---

---

34b. How much would you normally drink at each of these activities?

---

---

---

35. Do you ever feel there is any pressure to change how much you drink, and/or what you drink at social functions? Can you tell me about the kind of changes? At which social functions might this happen? Can you think why this might be? *(prompt:: is it to do with who is there; the type of activity etc.?)*

---

---

---

36. How do you think your drinking compares at home to when you're involved in social activities? *(prompt: is this more or less compared to how much you drink at social activities? Do you drink different types of alcohol (eg. spirits etc). Can you tell me more about this?)*

---

---

---

---

37. Do you think there's been any change in your drinking over the past 5/10 years or so? *(for example, has it increased, decreased, frequency changed in any way, choice of alcohol changed etc. Also explore with participants whether they think they're drinking the same amount over longer, or less in a shorter time etc, and what factors may influence this. If participants indicate their consumption has changed, explore whether there is an association between their alcohol use and moving to the retirement village (if living in retirement village)*

---

---

---

---

38. Do you think there's been any change in your partner's drinking over the past 5/10 years or so? If so, can you tell me a little more about that? *(for example, has it increased, decreased, frequency changed in any way, choice of alcohol changed etc. Also explore with participants whether they think they're drinking the same amount over longer, or less in a shorter time etc, and what factors may influence this. If participants indicate their consumption has changed, explore whether there is an association between their alcohol use and moving to the retirement village (if living in retirement village)*

---

---

---

---

39. Do you think there might be any differences in alcohol use between people who live in private homes compared to people who live in retirement villages? If so, can you think about why this might be? *(prompt: are there more opportunities for social interaction; availability of alcohol; not having to drive etc.?)*

---

---

---

---

40. Some people we've spoken to have told us that they have rules or strategies about their use of alcohol, such as not having a drink before a certain time of the day (eg. 6.00pm) or only drinking a particular type of alcohol. Can you tell us if you have any rules like these? *(prompt – explore why, have strategies been successful etc.?)*

---

---

---

---

41. Do you have any comments or other opinions you would like to add on the topic of either alcohol, living arrangements or social activities amongst older Australians?

---

---

---

---

---

**That concludes our questions.**

**Thank you very much for your help and participation in our research.**

***Then give the person the $25 voucher and ask them if they know any other person who might be interested in helping and give them a copy of the recruitment flyer to pass on to potential participants.***

# Appendix 2

**Edith Cowan University**
Faculty of Computing, Health & Science

AUSTRALIA ECU EDITH COWAN UNIVERSITY

# Seniors Research Study

Would you like to have some fun, take part in some university research and receive a $25 voucher as a thank you for your time?

If you are aged between 65 and 74, and have had a drink of alcohol in the past 12 months, we would like to interview you as part of an Edith Cowan University research study. This approved research is confidential, only takes about one hour, and can be undertaken in the comfort of your own home.

If you'd like to find out more, or express your interest in taking part, please contact:

Karyn Concanen
Edith Cowan University
Tel: 6304 5153 or 0407910277
Email: karyn.concanen@ecu.edu.au

For further information contact:
Dr Celia Wilkinson
Edith Cowan University
Tel: 6304 2597
Email: c.wilkinson@ecu.edu.au

School of Exercise, Biomedical & Health Sciences Telephone: +61 8 6304 2597 Web: www.ecu.edu.au

# Appendix 3



POST Community news

## Samira describes her flight t

**Samira Nabizadah shared the story of her escape from Afghanistan at the age of 11 in a talk last Sunday.**

The 21-year-old gave a talk at the Fremantle Arts Centre for the Support Association for the Women of Afghanistan (SAWA).

In Herat, where Samira lived, the Taliban would not allow girls to go to school.

"It was hard growing up in a house with two brothers, as they had freedom to go to gain an education and were given the right to excel," said Samira, who was home-schooled by her mother.

When the Taliban threatened to imprison her father because her family are Shia Muslims and the Taliban are Sunni Muslims, Samira's family decided to make their escape, leaving most of their belongings behind.

"My mother always tells us ... how my younger sister was a baby and she would cry, how we were yelled at by the drivers and told we might have to leave her behind or get off the bus in the middle of nowhere," Samira said.

The family travelled to Indonesia via Pakistan.

One night they were taken to the port where they were told to board a boat meant to fit about 75 people.

"But there were 330 passengers, including us," Samira said. "We were told to leave our entire luggage, handbags and everything else we were carrying to decrease the weight.

"This meant the loss of valuables such as birth certificates, family photos and family heirlooms.

"Everyone was pushing to get a spot on the boat. I could hear people around me crying and screaming from fear."

Samira's family spent three nights and four days on the boat, which broke down at one point.

"Water was gradually filling the boat," she said. "All the men emptied the water with small buckets. Everyone thought that was the end of the journey and I remember my dad putting our life jackets on.

"Everyone said goodbye to their loved ones in case we weren't going to make it."

After several hours of drifting, an on-board mechanic repaired the boat.

"We arrived in Christmas Island during the day," Samira said.

"We were tired, hungry, thirsty and soaking wet.

"After so many days and nights of cold travel it was amazing to see such a beautiful island with a gorgeous view. We felt relieved and blessed. We were then taken to Port Hedland detention centre via plane. We spent 12 months there."

Samira went back to visit Herat in 2007 and was pleased to see that women could now seek education, had the right to vote and could leave their houses without a man with them. But she said women were still expected to get married at a young age.

"If I was to still live in Afghanistan I can see myself married with three to four kids, with no education and no rights as a woman," she said.

"Here I am a 21-year-old, working hard and wishing to pursue my education in the police force next year.

"When the time is right for me, I might get married. I know I can do this at any point in my life living here but back in Afghanistan I wouldn't have had that choice."

For more information on SAWA, go to www.sawa-australia.org.

*Samira Nabizadah, held her audience*

## Call to stand up for climate action

**A family-focused gathering in support of immediate action on climate change will be held in the Perth Cultural Centre from 11am on Sunday, June 5.**

The event highlighting the need for a price on carbon pollution and greater investment in renewable energy is being held around Australia for World Environment Day.

It is organised by World Wide Fund for Nature Australia (WWF).

"Western Australians have shown on many occasions they are prepared to stand up for a better world for the future of their children" said Paul Gamblin, WA director of WWF.

"People from across the political spectrum and all walks of life have gathered together to protect our natural heritage, including forests and special places like Ningaloo Reef

"A price on carbon pollution will help protect those places make clean energy cheaper, and reward Australian businesses that take responsibility for cleaning up their acts – while penalising those that don't.

"We hope to see a big crowd on Sunday."

All are invited to the event which will be held between the Art Gallery and State Library.

## Study looks at when we drink

**There is a wealth of information about alcohol consumption among the young, but little is known about the drinking habits of older people.**

Researcher Dr Celia Wilkinson is looking for volunteers aged 65 to 74 to take part in important research into alcohol consumption, being conducted by Edith Cowan University's National Drug Research Institute and the Palmerston Association.

She said volunteers for the study needed to have had a drink of alcohol in the past 12 months, and be living in their own home.

Interviews for the study will take about 1½ hours. To take part in the research, call Karyn Concanen from Edith Cowan University on 6304 5153 or 0407 910 277.

# Appendix 4

Dear Resident,

You have been given this letter as invitation to participate in a study called the **Social context and alcohol use project**.

**What is the Social context and alcohol use Project?**

This study is funded by the Alcohol Education and Rehabilitation Foundation and Edith Cowan University. Alcohol is widely used and enjoyed throughout our society, and for many people it forms part of an enjoyable and healthy lifestyle. Some professionals have argued that alcohol consumption is of benefit both psychologically and physically to many people. One area that little is known about is alcohol use amongst older people. This survey by a research team from Edith Cowan University, Curtin University and Palmerston Association Inc., aims to better fill the gaps in our knowledge about the use of alcohol amongst older Australians.

We would like to ask for your participation in this project. Your involvement is appreciated but voluntary; therefore you may freely withdraw at any time from this project. To be eligible to participate you must be aged between 65 and 74 years inclusive, and have had a drink of alcohol in the last 12 months.

**What does participation in the interview involve?**

Should you agree to participate, you will be asked to participate in a one-on-one interview, which will take approximately one and a half hours. The interview will take place at your residence, and at your convenience. There are no right or wrong answers to any of the questions. Any information you provide will be confidential. No one but members of the research team will know the answers that you give, and by law they aren't allowed to tell others what you say. If you give consent, the interview will be audio recorded. All information relating to this research project will be stored securely and remain confidential. The results of the study may be published in reports, journals and conference proceedings. To ensure confidentiality, all personal information that may identify individuals will be removed, and codenames will be substituted for participant's real names.

At the end of the interview you will be given a $25 voucher as an acknowledgement of your time and commitment to participate.

**Next Steps**

Julie Pickett, the interviewer for the study, will contact you within the next few days to arrange a date and time for the interview.

**Further Information**

For further information please feel free to contact Dr Celia Wilkinson, the Chief Investigator for this research project, on phone: 6304 2597 or email: c.wilkinson@ecu.edu.au

Note: This study has been approved by the Edith Cowan University Human Research Ethics Committee. If you have any concerns or complaints about the research project and wish to talk to an independent person, you may contact the ECU Research Ethics Officer, Edith Cowan University, 270 Joondalup Drive, Joondalup WA 6027 or by telephoning (08) 6304 2170, or email research.ethics@ecu.edu.au

Kind regards

Dr Celia Wilkinson
Senior Lecturer
School of Exercise, Biomedical and Health Sciences
Edith Cowan University (Joondalup Campus)
Building 19, Room 390
+61 (08) 6304 2597

# Appendix 5

## 4. Consent Form

**Social context and alcohol use project**

I have read the information letter which was sent to me and any questions I have asked have been answered to my satisfaction. I understand that should I have any further questions I may contact members of the research team. I agree to participate in this activity, realising I may withdraw at any time. I understand that participation in this research project will involve being interviewed, and that this interview will be audio recorded. I understand that, on average, I will only need to give up about one and a half hours of my time answering questions for this research project. I understand that all information gathered during this research project will remain confidential. I agree that the research data gathered for this study may be published provided I am not identifiable.

Participant's Signature_____Date_____

Interviewer's Signature_____Date_____

| Dr Celia Wilkinson: Chief Investigator | Dr Julie Dare: Researcher |
|---|---|
| Edith Cowan University<br>Faculty of Computing, Health and Science<br>School of Exercise, Biomedical and Health Science<br>6304 2597<br>c.wilkinson@ecu.edu.au | Edith Cowan University<br>Faculty of Computing, Health and Science<br>School of Exercise, Biomedical and Health Science<br>6304 2613<br>j.dare@ecu.edu.au |
| Dr Stacey Waters: Researcher | |
| Edith Cowan University<br>Faculty of Computing, Health and Science<br>School of Exercise, Biomedical and Health Science<br>s.waters@ecu.edu.au | |

| Category | Theme 1 | Theme 2 | Theme 3 | Theme 4 | Theme 5 | Theme 6 | Theme 7 | Theme 8 |
|---|---|---|---|---|---|---|---|---|
| **Current level of social engagement (SE)** | limited | moderate | high | family contact | village life | club membership | spouse related activities | |
| **What prompted the move into a retirement village (V)** | downsize | no longer with spouse | injury/ health concerns | | | | | |
| **SE change over past 5-10 yrs** | no change | more social | less social | difficult to be as social when you get older | easier to be more social as you get older as you have more time | still just as social, just involved in different SE activities | | |
| **SE Activities** | village based activates (i.e. dinners) | lawn bowls | car club | rifle club | exercise classes (gym) | family functions/ visits | book club | general unstructured activities with friends |
| **Availability of alcohol during SE activates** | no, not available at any SE activities | yes, available at all SE activities | yes, available at most SE activities | yes, available at about half of the SE activities | yes, available at a few SE activities | yes, available at one SE activity | | |
| **Who consumes alcohol at SE activities** | self | mostly men | mostly women | depends who is driving | depends on the type of SE activity | depends on the time of day of the SE activity | | |
| **Type of alcohol consumed** | beer | wine | spirits | full bar | | | | |
| **SE activities where alcohol is more likely to be consumed** | activities that involve food | happy hour | depends on the type of SE activity | depends on the time of day of the SE activity | | | | |
| **How much alcohol is consumed** | none | less than one standard drink (SD) | two or three SD | four SD | more than four SD | depends on the type of SE activity | depends on the time of day of the SE activity | |
| **Pressure to amend alcohol consumption** | yes | no | | | | | | |
| **Difference between alcohol consumed at home versus SE activities** | more at home | more during SE activities | you don't have to drive as you are already home | it is more social to drink with others | can control how much you are drinking | can't control how much you are drinking (i.e. top-ups) | | |
| **Personal change in alcohol consumption over past** | increased | decreased | increased awareness about drink | health reasons | you don't have to drive as you are already home | More socialisation opportunities relates to drinking alcohol | | |

| Category | Theme 1 | Theme 2 | Theme 3 | Theme 4 | Theme 5 | Theme 6 | Theme 7 | Theme 8 |
|---|---|---|---|---|---|---|---|---|
| **5-10 yrs** | | | driving | | | more frequently | | |
| **Perceptions of partner's change in alcohol consumption over past 5-10 yrs** | Frequency unchanged, but quantity less | Decreased | increased awareness about drink driving | health reasons | | | | |
| **Perception of P (private homes) vs. V alcohol consumption** | more in P | more in V | consistent and planned social events in V | easier to socialise with others in V | P have to drive home after SE activities | Drinking a social activity – people more likely to drink when in company | | |
| **Self-induced and regulated methods to monitor alcohol consumption** | yes | no | only drink after a certain hour in the day | no alcohol without a meal | limit alcohol before meal | limit alcohol if driving | | |
| **General comments regarding alcohol consumption** | every day is different – therefore alcohol consumption is different every day | If driving, drinks early and limits amount | Type of activity determines when alcohol is consumed (during, after etc.) | "It is not really the kind of activity, but if you have to drive" (24MK) | | | | |
| **General comments regarding living arrangements** | important to be socially active | V life enables greater access to SE activities | V life is more socially engaging | | | | | |
| **Rituals associated with alcohol use** | Relaxing with a drink after 4.30 – marks transition between work (ie work around house, hobbies, volunteering etc.) and rest | | | | | | | |

# References

[1] Australian Bureau of Statistics. Census: QuickStats: Australia. Canberra: Australian Bureau of Statistics2007 25/10/2007 Contract No.: 29/10/2007.

[2] Australian Bureau of Statistics. Population projections Australia 1999-2101. Canberra: Australian Bureau of Statistics2000. Report No.: Cat. No. 3222.0.

[3] Chikritzhs T, Jonas H, Heale P, Stockwell T, Dietze P, Hanlin K, et al. National alcohol indicators project technical report no.1: Alcohol-caused deaths and hospitalisations in Australia, 1990-1997. Perth: National Drug Research Institute, Curtin University of Technology2000.

[4] English DR, Holman CD, Milne E, Winter MG, Hulse GK, Codde JP, et al. The quantification of drug caused morbidity and mortality in Australia. Canberra: Commonwealth Department of Human Services and Health1995.

[5] Chikritzhs T, Catalano P, Stockwell T, Donath S, Ngo H, Young D, et al. Australian Alcohol Indicators: Patterns of alcohol use and related harms for Australian States and Territories. Perth: National Drug Research Institute Curtin University of Technology.; 2003.

[6] Broe GA. From the president. Australian Association of Gerontology Newsletter. 2004;July:1.

[7] Chikritzhs T, Pascal R. Trends in alcohol consumption and related harms for Australians aged 65 to 74 years (the 'young-old'), 1990-2003, National Alcohol Indicators. Perth: National Drug Research Institute, Curtin University of Technology.2005 a. Report No.: Bulletin no.8.

[8] Coulton S. Alcohol use disorders in older people. Reviews in Clinical Gerontology. 2009;19:217-25.

[9] Wilkinson C, Lintzeris N, Haber P. Special populations: older people. Canberra: Australian Government Department of Health and Ageing 2009.

[10] Lynskey MT, Day C, Hall W. Alcohol and other drug use disorders among older-aged people. Drug and Alcohol Review. 2003;22(2):125-33.

[11] Byles J, Young A, Furuya H, Parkinson L. A drink to healthy aging: The association between older women's use of alcohol and their health-related quality of life. Journal of the American Geriatric Society. 2006;54:1341-7.

[12] Adams WL. Alcohol use in retirement communities. Journal of the American Geriatric Society. 1996;44:1082-5.

[13] Alexander F, Duff RW. Social interaction and alcohol use in retirement communities. Gerontologist. 1988;5:632-6.

[14] Lang I, Wallace RB, Huppert F, Melzer D. Moderate alcohol consumption in older adults is associated with better cognition and well being than abstinence. Age and Ageing. 2007;36(3):256-61.

[15] Peele S, Brodsky A. Exploring psychological benefits associated with moderate alcohol use: A necessary corrective to assessments of drinking outcomes? Drug and Alcohol Dependence. 2000 Nov 1;60(3):221-47.

[16] Khan N, Wilkinson TJ, Keeling S. Reasons for changing alcohol use among older people in New Zealand. Australasian Journal of Ageing. 2006;25:97-100.

[17] Ong AD, Allaire JC. Cardiovascular Intraindividual Variability in Later Life: The Influence of Social Connectedness and Positive Emotions. Psychology and Aging. 2005;20(3):476-85.

[18] House JS, Landis KR, Umberson D. Social relationships and health. Science. 1988;241(4865):540-6.

[19] Shankar A, McMunn A, Banks J, Steptoe A. Loneliness, social isolation, and behavioral and biological health indicators in older adults. Health Psychology. 2011;30(4):377-85.

[20] Seeman TE, Crimmins E. Social Environment Effects on Health and Aging. Annals of the New York Academy of Sciences. 2001;954(1):88-117.

[21] Berkman LF, Glass T, Brissette I, Seeman T. From social integration to health: Durkhein in the new millennium. Social Science & Medicine. 2000;51:843-57.

[22] Westen D, Burton L, Kowalski R. Psychology: Australian and New Zealand edition. Milton, Australia: John Wiley & Sons; 2006.

[23] Fratiglioni L, Paillard-Borg S, Winblad B. An active and socially integrated lifestyle in late life might protect against dementia. The Lancet Neurology. 2004;3(6):343--53.

[24] Glei DA, Landau DA, Goldman N, Chuang Y-L, Rodríguez G, Weinstein M. Participating in social activities helps preserve cognitive function: an analysis of a longitudinal, population-based study of the elderly. International Journal of Epidemiology. 2005 August 2005;34(4):864-71.

[25] Pillai JA, Verghese J. Social networks and their role in preventing dementia. Indian Journal of Psychiatry. 2009;51(5):22-8.

[26] Stephens C, Alpass F, Towers A, Stevenson B. The Effects of Types of Social Networks, Perceived Social Support, and Loneliness on the Health of Older People. Journal of Aging and Health. 2011 September 1, 2011;23(6):887-911.

[27] Hraba J, Lorenz FO, Pechacova Z. Age and depression in the post-communist Czech Republic. Res Aging. 1997;19(4):442-61.

[28] Russell DW, Cutrona CE, de la Mora A, Wallace RB. Loneliness and nursing home admission among rural older adults. Psychol Aging. 1997;12(4):574-89.

[29] Kohli M, Hank K, Künemund H. The social connectedness of older Europeans: patterns, dynamics and contexts. Journal of European Social Policy. 2009 October 1, 2009;19(4):327-40.

[30] Wilkinson C. Pouring practices of 65 to 74 year old current drinkers: Implications for drinking guidelines and estimates of risk. Perth, Western Australia: Curtin University of Technology; 2008.

[31] Merrick EL, Horgan CM, Hodgkin D, Garnick DW, Houghton SF, Panas L, et al. Unhealthy drinking patterns in older adults: prevalence and associated characteristics. Journal of the American Geriatric Society. 2008;56:214-23.

[32] Australian Institute of Health and Welfare. 2010 National Drug Strategy Household Survey report. In: AIHW, editor. Canberra, Australia: AIHW; 2011.

[33] Ewing JA. Detecting alcoholism: The CAGE questionnaire. JAMA. 1984;252:1905-7.

[34] National Health and Medical Research Council. National Statement on Ethical Conduct in Human Research. Canberra, Australia: NHMRC; 2007.

[35] Edith Cowan University. Ethics and research. Joondalup, Western Australia: Edith Cowan University; 2007 [September 16, 2010]; Available from: http://www.ecu.edu.au/GPPS/ethics/human_ethics_committee.html.

[36] Australian Bureau of Statistics. Census of population and housing: Soci-economic indexes for areas (SEIFA), Australia. Canberra: Australian Bureau of Statistics; 2006.

[37] Australian Institute of Health and Welfare. 2004 National Drug Strategy Household Survey: First Results. Canberra: Australian Institute of Health and Welfare.2005.

[38] Australian Institute of Health and Welfare. 2007 National Drug Strategy Household Survey: First Results. Canberra: Australian Institute of Health and Welfare.; 2008.

[39] Moos RH, Brennan PL, Schutte KK, Moos BS. Older adults' health and changes in late-life drinking patterns. Aging and Mental Health. 2005;9(1):49-59.

[40] Khan N, Davis P, Wilkinson TJ, Sellman JD, Graham P. Drinking patterns among older people in the community: hidden from medical attention? New Zealand Medical Journal. 2002;115(1148):72-5.

[41] Moore A, Giuli L, Gould R, Hu P, Zhou KF, Greendale G, et al. Alcohol use, comorbidity and mortality. Journal of the American Geriatric Society. 2006;54:757-62.

[42] Adlaf EM, Begin P, Sawka Ee. Canadian Addiction Survey: A national survey of Canadians' use of alcohol and other drugs: Prevalence of use and related harms: Detailed report. Ottawa: Canadian centre on Substance Abuse2005.

[43] Anderson PA, Baumberg B. Alcohol in Europe: A public health perspective. London: Institute of Alcohol Studies2006.

[44] Buschsbaum DG, Buchanan RG, Welsh J, Centor RM, Schnoll SH. Screening for drinking disorders in the elderly using the CAGE questionnaire. Journal of the American Geriatric Society. 1992;40(7):662-5.

[45] Dawe S, Loxton NJ, Hides L, Kavanagh DJ, Mattick RP. Review of diagnostic screening instruments for alcohol and other drug use and other psychiatric disorders. Canberra: Commonwealth of Australia2002.

[46] Thombs DL, Wolcott BJ, Farkash LG. Social context, perceived norms and drinking behavior in young people. Journal of Substance Abuse. 1997;9:257-67.

[47] Stall R. Research issues concerning alcohol consumption among aging populations. Drug and Alcohol Dependence. 1987;19:195-213.

[48] Paganini-Hill A, Kawas CH, Corrada MM. Type of alcohol consumed, changes in intale over time and mortality: the Leisure World Cohort Study. Age and Ageing. 2007;36:203-9.

[49] Smith L, Foxcroft D. Drinking in the UK: An exploration of trends. London: Joseph Rowntree Foundation2009.

[50] Wang WC, Worsley A, Hunter W. Similar but different. Health behaviour pathways differ between men and women. Appetite. 2012;58:760-6.

[51] Crome I, Crome P. At your age, what does it matter?- myths and realities about older people who use substances. Drugs: education, prevention and policy. 2005;12(5):343-7.

**Foundation for**
**Alcohol Research**
**& Education**

Level 1
40 Thesiger Court
Deakin ACT 2600

PO Box 19
Deakin West
ACT 2600

**www.fare.org.au**

**ISBN: 978-0-9874003-8-3**